

AUTOPSY REPORT

Case Number:

October 4, 2017

AUTOPSY REPORT

PATHOLOGICAL EXAMINATION ON THE BODY OF



PATHOLOGIC DIAGNOSES

- I. Gunshot wound of the back.
 - A. Entrance wound: left back. No soot or stippling.
 - B. Exit: no exit wound.
 - C. Trajectory: left-to-right, back-to-front and downward.
 - D. Path: Skin and tissues of the back, chest cavity fracturing rib #6 posterior, upper and lower lobe of left lung, pericardium and heart.
 - E. Injuries: fracture of the 6th rib, posterior; Injuries of the left lung and heart associated with left hemothorax, 900 ml, and hemopericardium, 250 ml.
 - F. Evidence: Two fragmented projectiles recovered from the hemopericardium; photographed and retained as evidence.
- II. Other findings.
 - A. No evidence of other injuries.
 - B. No significant natural disease.

OPINION

Per LVMPD preliminary reports, on 10/01/2017, concertgoers were attending an outdoor music festival. At approximately 2208 hours, numerous rapid fire gunshots were heard and numerous individuals were struck with gunshots. It was determined that an individual (reference CCOCME case #17-10064) had opened fire from the 32nd floor of the Mandalay Bay Hotel and Casino across the street from the festival. Victims fled the scene and numerous victims were transported to local hospitals. First responders later located the single suspect who was killed in a believed suicide.



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External examination revealed a normally developed and well-nourished years, with a penetrating gunshot wound of the back. The entrance wound was noted on the back, and no exit wound noted. There were injuries to the heart and left lung and associated hemopericardium and left hemothorax. Two fragmented projectiles recovered from the hemopericardium; retained as evidence. The projectile trajectory was left-to-right, back-to-front, and downward. No other injuries or non-traumatic natural disease noted. Toxicology testing was positive for alcohol, 0.04% and negative for illicit drugs of abuse.

Based on the autopsy findings and the circumstances surrounding the death, as currently understood, the cause of death is gunshot wound of the back, and the manner of death is Homicide.

CAUSE OF DEATH: This -year-old female, as a result of GUNSHOT WOUND OF THE BACK.

, died

Date signed: \7 /20 /26\7

MANNER OF DEATH: HOMICIDE.

AbuBakr Marzouk, M.B.

Forensic Pathologist

AM/kra





October 4, 2017

POSTMORTEM EXAMINATION ON THE BODY OF

Date of death: 0545 hours on October 2, 2017

Date of autopsy: 0130 hours on October 4, 2017

REASON FOR CORONER JURISDICTION: Apparent homicide by gunshot wound(s). Mass Fatality Event; Las Vegas Metropolitan Police Department (LVMPD) Event # 171001-3519.

IDENTIFICATION: The decedent was placed into a body bag and sealed with coroner seal The decedent was subsequently transported to the CCOCME for further examination. The body is identified by a Medical Examiner's identification toe tag on the right great toe bearing the decedent's name and case number.

WITNESSES: LVMPD Homicide Detective J. Grimmett and LVMPD Crime Scene Analyst personnel

CLOTHING: The body is clad in white/blue shirt, blue jeans, black bra, multi-colored underwear, green socks, and brown boots when presented for autopsy.

EXTERNAL EXAMINATION

The body is that of a normally developed and well-nourished female appearing consistent with the listed age of years. The length is 69 inches, and the weight is 179 pounds as received. The body is well preserved, cold, and has not been embalmed. Rigidity is fully developed in the jaw and extremities. Lividity is pink-purple, non-blanching on the back.

The head is normocephalic and the scalp is covered with brown hair measuring up to 24 inches on the top of the head. The ears are normally formed and without drainage. The earlobes are pierced. The irides are hazel, the corneas clear, and the bulbar and palpebral conjunctivae free of petechiae. The sclerae are white.



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The nose is intact, and the nares are clean and unobstructed. The lips are normally formed. The teeth are natural and in good condition. The neck is without injuries or deformities.

The chest is normally formed, symmetrical, and without palpable masses or deformity. The breasts are symmetrical, and without palpable masses. The abdomen is flat and soft. No masses are palpable. The atraumatic external genitalia are those of an adult female. The back is straight and symmetrical with no trauma or defects. The anus is atraumatic.

The upper extremities are normally formed. No needle punctures, track marks, or ventral wrist scars are noted. The fingernails are unremarkable. The lower extremities are normally formed and have no edema, amputations, or deformity. The toenails are unremarkable painted green.

BODY MARKINGS (SCARS AND TATTOOS): No tattoos or major surgical scars are noted.

EVIDENCE OF INJURY

GUNSHOT WOUND OF THE BACK:

A penetrating gunshot wound is noted of the torso, with a small entrance wound on the back, left of the posterior midline, and no exit wound. No other injuries are noted. No soot or stippling is noted surrounding the entrance wound consistent with an indeterminate range of fire.

ENTRANCE WOUND: Left upper back. The wound measures 1/8 inch with a symmetric abrasion rim measuring 1/16 inch in width. The wound is centered 16 inches from the top of the head and 6 inches left of the posterior midline.

EXIT: No exit wound seen.



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PATH: The projectile path is through the back, left lung and heart.

INJURIES: Injury to the muscles of the back, fracture of rib #6, posteriorly, and injuries to the upper and lower lobes of the left lung, and heart are noted, and associated with left hemothorax, 900 ml, and hemopericardium, 250 ml.

PROJECTILE: Two projectile fragments are recovered from the hemopericardium; photographed and retained as evidence.

TRAJECTORY: Left-to-right, back-to-front and downward.

INTERNAL EXAMINATION

INITIAL INCISION: The body cavities are entered through the standard coronal incision and the standard Y-shaped incision.

BODY CAVITIES: The abdominal fat layer measures up to 4 cm in thickness. The pericardial cavity contains 250 ml of blood, and the left chest cavity 900 ml. The other body cavities have no hemorrhage or abnormal fluid. The uninjured serosal surfaces are smooth, glistening, and without adhesions. The organs are normally located. The diaphragm is intact. The body cavities have no nontraumatic abnormalities.

CARDIOVASCULAR SYSTEM: See "Evidence of Injury". The uninjured pericardium is thin and smooth. Within the pericardial sac, there is 250 mL of fluid and clotted blood. The heart weighs 240 grams and is not enlarged. It has a normal shape with a smooth, glistening epicardium. The coronary arteries have a normal origin and distribution with right dominance. There are no atherosclerotic changes.

The chambers are normally developed and are without mural thrombosis. The myocardium is unremarkable. The ventricles are not dilated or hypertrophied. The right ventricle, left ventricle, and interventricular septum measure 0.5 cm, 1.2 cm, and 1.2 cm,



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respectively. There is no hypertrophy or dilatation. There are no non-traumatic abnormalities.

The endocardium is intact, smooth, and glistening. The cardiac valve leaflets are of normal number, pliable, intact, and free of vegetations. The tricuspid, pulmonic, mitral and aortic valves measure 12 cm, 8 cm, 11 cm and 8 cm, respectively. The atrial and ventricular septa are free of defects. There is no abnormality of the apices of the papillary musculature.

The great vessels enter and leave in a normal fashion. The aorta follows its usual course and has no atherosclerotic changes. There are no vascular anomalies or aneurysms. The vena cavae and pulmonary arteries are without thrombus or embolus.

RESPIRATORY SYSTEM: See "Evidence of Injury". The right and left lungs weigh 400 and 200 grams, respectively, and have the usual lobation. The uninjured pleura are smooth and glistening; the lungs have small anthracotic pigment. The lungs are well expanded and crepitant. The uninjured parenchyma is dark red and exudes moderate amounts of fluid. The lungs have no consolidation, infarct, tumor, gross fibrosis, or enlargement of airspaces. The bronchi contain no foreign material and have unremarkable mucosa. The hilar lymph nodes are not enlarged.

HEPATOBILIARY SYSTEM: The liver weighs 1350 grams, is of average size. The intact capsule is smooth and glistening. The parenchyma is red-brown and uniform without mass, hemorrhage, yellow discoloration, or palpable fibrosis. The gallbladder contains dark green bile and no stones. Its mucosa is uniform and the wall is not thickened.

The pancreas has a normal size, shape, and lobulated structure. The parenchyma is pink-tan, firm, and uniform. The pancreatic ducts are not ectatic, and there is no parenchymal calcification.

HEMOLYMPHATIC SYSTEM: The spleen weighs 150 grams. The capsule is smooth and intact. The parenchyma is maroon, firm, and uniform.



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There is no enlargement of the lymph nodes in the neck, chest, or abdomen.

ENDOCRINE SYSTEM: The thyroid gland is not enlarged, and the lobes are symmetrical. The parenchyma is uniform, firm, and redbrown. The parathyroid glands are not identified. The adrenal glands have the usual size and shape. The cortices are thin, uniform, and yellow, and there is no hemorrhage or tumor. The pituitary gland is not enlarged and is unremarkable.

GASTROINTESTINAL SYSTEM: The esophagus and gastroesophageal junction are unremarkable. The stomach is not distended. The stomach contains approximately 50 ml of tan paste. The gastric and duodenal mucosae are intact and unremarkable. The small and large intestines are unremarkable to inspection and palpation and sectioning. The appendix is present and is unremarkable.

GENITOURINARY SYSTEM: The right and left kidneys weigh 100 and 90 grams, respectively, and have a normal shape and position. The cortical surfaces are smooth. The kidneys have the usual corticomedullary structure without tumors or cysts. The pelves and ureters are not dilated or thickened. The bladder contains 200 ml of clear yellow urine. The mucosa is intact, and the bladder wall is not hypertrophied.

The uterus, tubes, and ovaries are of expected size and have smooth serosal surfaces. The non-gravid uterus is symmetrical and the uterine cavity is unremarkable. The fallopian tubes are unremarkable. The cervix is patent. The myometrium is uniform and the endometrium is unremarkable. The sectioned ovaries are unremarkable for age. The vagina is unremarkable.

NECK: The tongue, strap muscles, and other anterior neck soft tissues have no hemorrhage. The hyoid bone and the cartilaginous structures of the larynx and trachea are normally formed and without fracture. The airway is unobstructed, lined by smooth, pink-tan mucosa, and contains no foreign material. The cervical vertebrae have no displacement, hypermobility, or crepitus.



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MUSCULOSKELETAL SYSTEM: See "Evidence of Injury". The musculoskeletal system is well developed and free of deformity. There are no fractures of the clavicles, sternum, vertebrae, or pelvis. The ribs are not brittle. There is fracture of left rib #6. The skeletal muscle is dark red and firm.

CENTRAL NERVOUS SYSTEM: The scalp is free of hemorrhage. The calvarium and base of the skull are normally configured and have no fractures. The dura is intact, and there is no epidural, subdural or subarachnoid hemorrhage.

The unfixed brain weighs 1340 grams. The leptomeninges are glistening, thin and transparent without underlying hemorrhage, exudate, or cortical contusions. The hemispheres are symmetrical and have a normal gyral pattern. There is no flattening of the gyri, narrowing of the sulci, midline shift, or evidence of herniation. The arteries at the base of brain have no atherosclerotic changes or aneurysms.

Sections through the cerebral hemispheres have a uniform, intact cortical ribbon and uniform white matter. Anatomic landmarks are preserved, symmetrical and without focal change. The ventricles are not enlarged without dilation or distortion, and the linings are smooth and glistening. The pons, medulla, and cerebellum are unremarkable, without focal lesions. There is no evidence of uncal or cerebral hermiation.

SPECIMENS RETAINED

 $\underline{\text{TOXICOLOGY}}$: Samples of heart and pericardial blood, vitreous humor, and urine are retained for toxicology. Toxicology testing is positive for alcohol (ethanol) 44 mg/dL (0.044%) and negative for illicit drugs of abuse.

HISTOLOGY: None submitted.



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PHOTOGRAPHS: Digital identification photographs are obtained. Selected photographs are obtained during autopsy for documentation.

RADIOGRAPHS: Routine radiographs obtained and revealed radiodense projectile within the cardiac shadow and no non-traumatic abnormalities.